symptoms. This study addressed whether pacing is useful to decrease the severity of MR.

Methods: We performed a retrospective analysis on 15 patients with HOCM who received dual chamber pacing for drug refractory symptoms. The AV delay was optimized to give the greatest reduction in LVOT gradient while ensuring the ventricles were optimally pre-excited. MR was assessed by Color Doppler performed before and after (mean:5.6 ± 6.9 months) pacemaker insertion.

Results: Twenty percent of patients had no MR, 47 percent had mild MR and 33 percent had moderate or severe MR. Dual chamber pacing resulted in improvement in MR in 75 percent of patients with moderate or severe MR and the improvement correlated directly with the reduction in LVOT gradient ($r = 0.963$; $p = 0.037$). There was no change in patients with mild MR.

Conclusion: Dual chamber pacing lessens the severity of MR in patients with HOCM and moderate or severe MR and this improvement is directly related to the reduction in LVOT gradient.

1011-28 Identification of Patients Requiring DDD-Pacemaker After Percutaneous Transluminal Septal Myocardial Ablation in Hypertrophic Obstructive Cardiomyopathy

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Background: Alteration of the intra-His bundle branches is a major complication of percutaneous transluminal septal myocardial ablation (PTSMA) in HOCM that mandates early and reliable identification of those pts. at risk for permanent complete heart block (CHB).

Methods: We analyzed the hospital course of 83 pts. after PTSMA. Restoration of stable AV-conduction lasted up to 11 days in 1 pt.; 1 pt. suffered from syncope due to CHB 9 days after PTSMA. We compared several clinical and electrocardiographic characteristics of pts. with and without need of DDD-pacemaker (PM).

Results: 11 (13%) pts. required a DDD-PM after PTSMA (Group I), in 72 pts. a stable AV-conduction could be observed (Group II).

	Group I	Group II	p
CHB during PTSMA (%)	100	58	0.03
CHB at ICU arrival (%)	91	33	0.001
AV-conduction at 12 hrs (%)	64	76	0.0005
AV-conduction at 48 hrs (%)	9	83	0.0001
QRS time at 48 hrs (msec)	171 ± 16	138 ± 25	0.0001
CGT peak (hrs after PTSMA)	18.2 ± 3.7	13.6 ± 5.1	0.0005

From the data available after 48 hours in the first 33 pts. a score was calculated that identified the first 7 pts. who need a DDD-PM after PTSMA. Afterwards all PM pts. were prospectively identified.

Conclusions: Based on careful 48-hours follow-up identification of pts. prone to permanent CHB seems to be possible. Further prospective validation of the score will add to safety of PTSMA.

1012 Mitral Balloon Valvulotomy: Surgical Repair

Sunday, March 29, 1998, 5:00 p.m.–7:00 p.m.
Georgia World Congress Center, West Exhibit Hall Level
Presentation Hour: 5:00 p.m.–7:00 p.m.

1012-18 Is it Possible to Perform Valve Repair for Severe Mitral Regurgitation After Percutaneous Mitral Commissurotomy?

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Background: Severe mitral regurgitation (MR) following percutaneous mitral commissurotomy (PMC) generally requires surgery, but conservative surgery has been reported in only a few cases. The aim of this study was to test the feasibility of valve repair for severe MR after PMC, and the quality of this repair.

Methods: Of 1514 patients (pts) who underwent PMC in our department between 1986 and 1995, 51 (3.4%) had severe MR (≥Sellers' grade 3) following the procedure. Mitral surgery was performed in 47 pts and valve repair was judged feasible in 23 on the following criteria: non-calcified valves, absence of complete papillary muscle rupture, and age <60 years. The mechanisms of MR, either singly or in combination, were a paracommissural tear in 9 pts (39%), a median leaflet tear in 10 (43%), excessive commissural opening in 1 (4%), a partial papillary muscle rupture in 2 (9%), and chordal rupture in 5 (22%).

Results: Surgery was performed by an experienced team in the first 24 hours after PMC in 3 pts, between day 1 and 30 in 15 pts, and after the first month in 5. In 4 cases, valve replacement was necessary because of severe subvalvular disease which had been underestimated by echography. Mitral valve repair was performed in 19 pts and combined commissurotomy in all pts with suture of a leaflet tear in 13, use of a pericardial patch in 6, and annuloplasty in 3. After valve repair, mean valve area was 1.9 ± 0.2 cm^2 and mitral regurgitation was present in 14 pts: grade 1 in 10, grade 2 in 4. No patient required reoperation.

Conclusion: Valve repair may frequently be performed for severe MR after PMC, with good immediate results, provided surgery is performed by an experienced team in patients selected by echocardiographic findings.

1012-19 The Role of age on Early and Late Prognosis of Percutaneous Mitral Balloon Valvulotomy in Rheumatic Mitral Stenosis

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The early and late prognosis of percutaneous mitral balloon valvulotomy (MBV) in younger age group of patients with rheumatic mitral stenosis was investigated. The study group consisted of 322 patients with echo score ≤9. In Group A (age ≤35 years) there were 170 patients, and in Group B (age >35 years) 152 patients. Successful MBV is defined as an increase of at least 25% of initial mitral valve area (MVA) or a post-MBV MVA of ≥1.5 cm^2, restenosis is defined as a 50% reduction of the increase obtained by MBV. In Group A, there were more women (85.8% vs 77.6%, p > 0.05) and more patients had sinus rhythm prior to MBV (89.4% vs 59.1%, p < 0.005). Pre-MBV, left atrial size, pulmonary artery pressure and diastolic mitral gradient were similar in both groups, whereas MVA was higher in Group A (1.08 ± 0.26 cm^2 vs 1.01 ± 0.26 cm^2, p = 0.025). The early increase in MVA (1.93 ± 0.28 cm^2 vs 1.9 ± 0.25 cm^2) and decrease in diastolic mitral gradient (18.7 to 6.7 mmHg vs 19.3 to 7.1 mmHg) were not different between Group A and Group B. The failure rate of MBV was 5.88% in Group A and 5.26% in Group B, and the difference was not significant. The MVA at 1st, 2nd and 4th year was similar in both groups. In Group A 1st, 2nd and 4th year restenosis rates were 5.26%, 13.9% and 15%, and 3.7%, 5.4% and 15.7% in Group B respectively, and the difference was not significant.

Conclusion: The early and late prognosis of MBV was not different in patients of relatively younger age, despite the better MVA and higher rate of sinus rhythm in this group prior to MBV. MBV is an effective mode of therapy in patients with rheumatic mitral stenosis and the outcome is independent of age, rhythm and MVA at the time of the procedure.

1012-20 Immediate and Long Term Outcome of Percutaneous Mitral Balloon Valvotomy in Patients With Mitral Stenosis and Atrial Fibrillation

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We compared the immediate and long term outcomes of percutaneous mitral balloon valvotomy (PMV) in 379 pts in atrial fibrillation (AF) with those of 355 pts in normal sinus rhythm (NSR). Patients in AF were older (62 ± 12 vs. 48 ± 14, p < 0.0001) and presented more frequently with NYHA class IV (18.3 vs. 7.9%; p < 0.0001), echocardiographic (Echo Sc) >8 (40.1 vs. 25.1%, p < 0.0001), calcified valves under fluoroscopy (32.4 vs. 18.8%; p < 0.0001) and with a history of previous surgical commissurotomy (21.7 vs. 16.4%, p = 0.0002). In patients with AF PMV resulted in inferior immediate and long term outcomes as reflected in a smaller post-PMV mitral valve area (1.7 ± 0.7 vs. 2.0 ± 0.7 cm^2; p < 0.0001) and a lower event free survival (freedom from death, redo-PMV and mitral valve surgery) at a median follow-up of 61 months (32 vs. 61%; p < 0.0001). In the AF group logistic regression identified post-PMV mitral regurgitation >3+ (p = 0.0001), Echo Sc >8 (p =